STATE OF MARYLAND

DHMH

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201 W. Preston Street, Baltimore, Maryland 21201

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Office of Preparedness & Response
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July 29, 2008
Public Health & Emergency Preparedness Bulletin: # 2008:30
Reporting for the week ending 07/26/08 (MMWR Week #30)

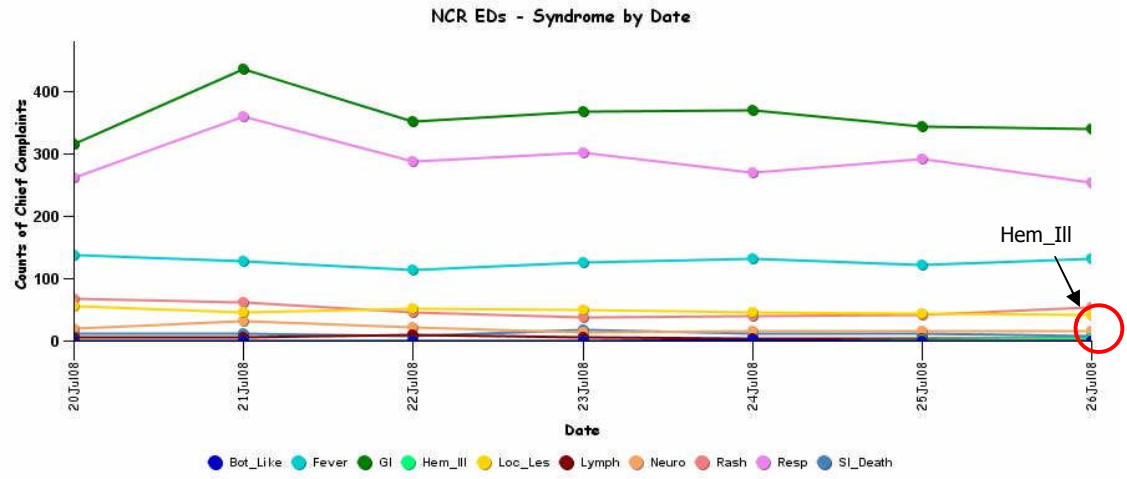
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

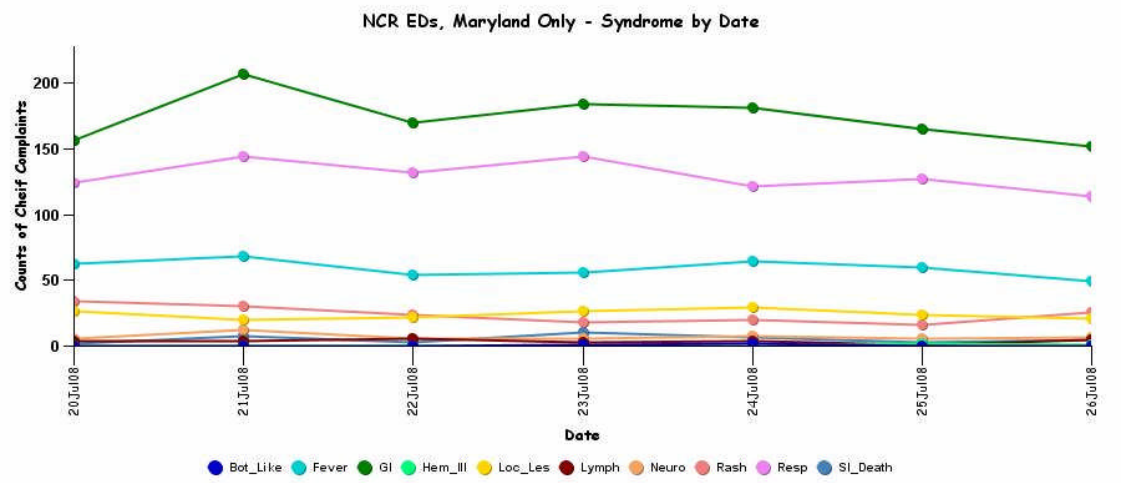
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

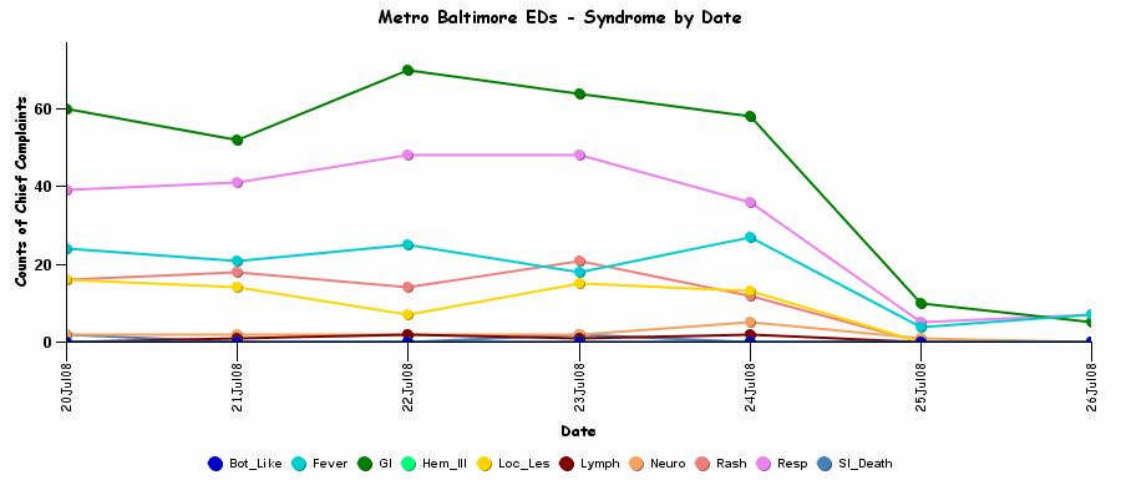
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system



* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system

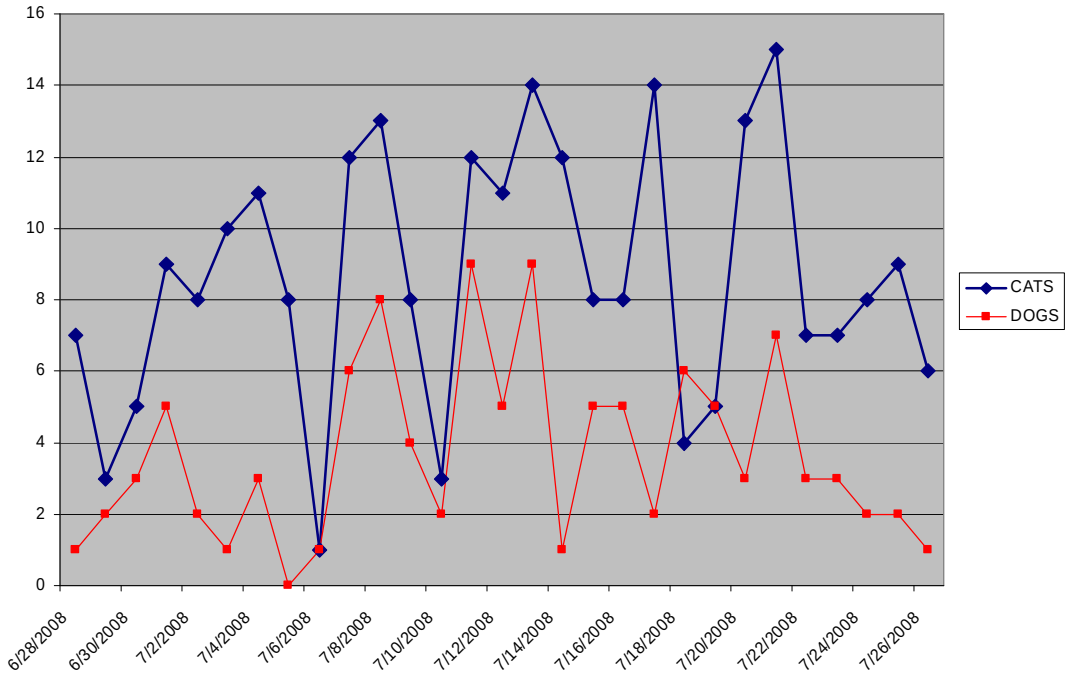


****Note: Not all of the data were available for Jul 25 and Jul 26 due to temporary technical issues that are being addressed****

* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

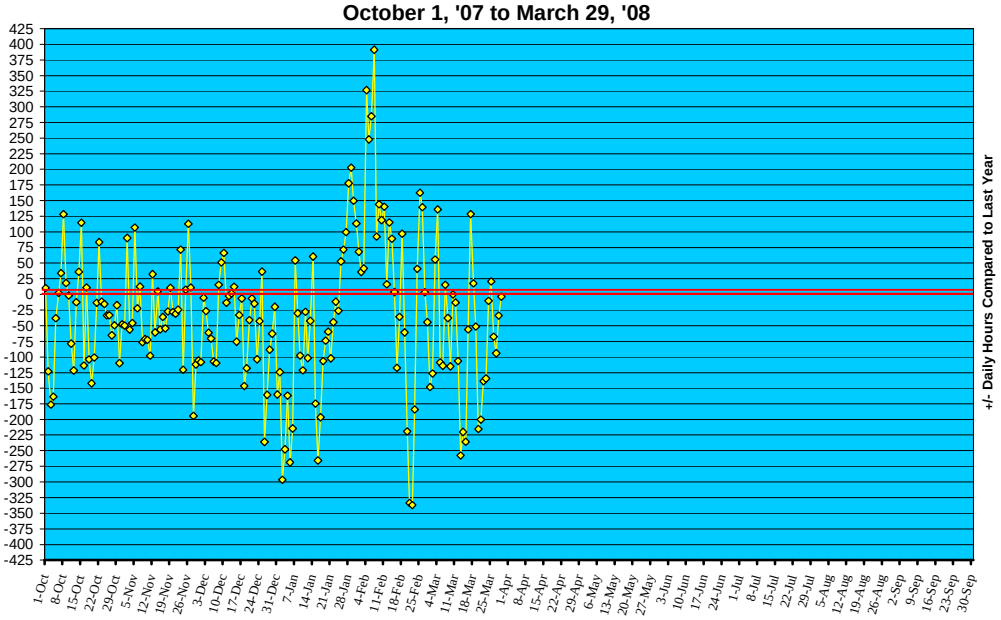
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.
*Note: No new data available at this time.

Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '07 to March 29, '08



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2008 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (Jul 20 – 26, 2008):	16	0
Prior week (Jul 13 –19, 2008):	9	0
Week#30, 2007 (Jul 22 –28, 2007):	17	0

OUTBREAKS: 6 outbreaks were reported to DHMH during MMWR Week 30 (July 20-July 26, 2008):

2 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS associated with an Assisted Living Facility

1 outbreak of GASTROENTERITIS associated with a Camp

4 Foodborne Gastroenteritis outbreaks
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Daycare Facility

1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant

1 outbreak of FOODBORNE GASTROENTERITIS associated with an Institution

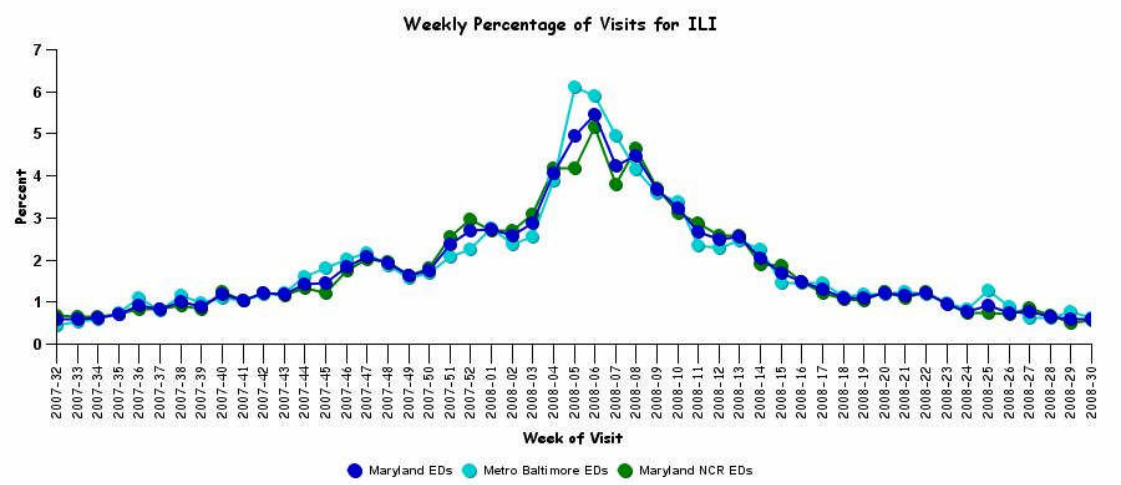
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Company Picnic

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of June 19, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 385, of which 243 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

AVIAN INFLUENZA, VACCINATION (Viet Nam): Chickens that are vaccinated against bird flu are supposed to be immune to the disease. But hundreds of chickens at a poultry farm in southern Viet Nam have died of avian influenza -- even though the farm owner had earlier reported that the birds were vaccinated against the disease, an official said yesterday [July 17, 2008]. Since late last month [June 2008], several hundreds of the 3000 chickens in the flock have died at the farm in Tan Lan commune in Long An province, 50 km [31 miles] west of Ho Chi Minh City. Last week, they were tested positive for the H5N1 avian-influenza virus, said Mr. Dinh Van The, head of the province's Animal Health Department. The farm owner reported to the department that all birds in the farm had been vaccinated against bird flu, he said. "We suspect that he was not honest in his report, or that the vaccine used at the farm was of bad quality," he added. "We are investigating the case." H5N1 affects mainly poultry and wild birds, but can infect humans who have close contact with sick fowl. Scientists fear that, if it spreads unchecked, the disease could mutate into a form that could be transmitted between humans, leading to a worldwide epidemic. Bird flu has killed 5 people in Viet Nam since the beginning of this year.

NATIONAL DISEASE REPORTS:

ANTHRAX, BOVINE (SOUTH DAKOTA): State Veterinarian Sam Holland said Thursday [July 24, 2008] that lab tests have positively confirmed a 2nd case [outbreak] of anthrax in Hutchinson County, South Dakota. The cases are not alarming, said Holland, but are a cause for concern. "We see anthrax almost every year in some part of the state and we never know where (it will crop up). Some years, we've seen it in 3 corners of the state in the same week." Holland said the disease, which can occur in both humid or drought conditions, is difficult to predict. "We can see it under normal conditions or in cases where soil is disrupted to put in a water line," he said, explaining that the digging can expose dangerous anthrax spores that have stayed dormant in the soil. The state had only 2 case of anthrax in 2007, one in Brown County and another in Brule County. Holland said there were 57 cases in 2005. "There were hundreds and hundreds of animals lost [that year]," he said. [There were some 57 ranches with cases and literally hundreds of dead

animals on those 57 ranches. There were some 200 dead bison recorded on the index rodeo ranch and as a result outbreaks followed in some 13 counties to the NW, NE, and south. - Mod.MHJ] Anthrax vaccines are effective, said Holland, and animal vaccination is recommended. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect Case

EASTERN EQUINE ENCEPHALITIS, EQUINE (FLORIDA): More than 50 horses have died statewide this year [2008] from the worst outbreak in recent summers of an infection caught from mosquito bites. No people have gotten the illness, but the state confirmed 56 cases of Eastern equine encephalitis (EEE) in horses as of early July 2008. Animals from Orange, Volusia, Lake, Osceola and Polk counties were among the victims. For comparison, there were 18 cases in horses during all of 2007, and 17 in 2006."This infection is almost always fatal," said Dr. Michael Short, a veterinarian and equine program manager with the Florida Department of Agriculture and Consumer Services. "These horses get very sick, very fast. It's horrible to see." The condition is caused by the Eastern equine encephalitis virus, which can be carried by mosquitoes and passed to people or animals through bites. EEE always exists at some level in Florida's abundant insect population, but it tends to peak in July and August. At its worst, the virus can lead to a brain infection called encephalitis. Florida hasn't had a human case of Eastern equine encephalitis since 2005, and it has been pretty infrequent for horses, too. In a bad year, more than 200 horses have gotten sick. But the animals have an advantage over people: They can be vaccinated. In normal circumstances, horses should be immunized for Eastern equine every 6 months, said Dr. Erin Denney-Jones, a Lake County veterinarian. But during an outbreak such as Florida is experiencing, vets recommend a shot every 4 months. The vaccine doesn't give complete protection -- some horses still get sick. But it cuts the chances significantly. Short said the "vast majority" of this year's cases have occurred in animals that were not up-to-date on their immunizations. The economy may be contributing to the outbreak. Eastern equine vaccines are relatively inexpensive, running about USD 7 a shot if ordered directly from a supplier, Short said. But it's illegal in Florida for anyone other than a veterinarian to give the shots, and people may not have the cash to pay for a veterinarian visit. "We send out reminders when it's time for vaccinations," Denney-Jones said, "and we're definitely not getting as many people responding" this year. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, PRAIRIE DOGS, FERRETS(SOUTH DAKOTA): A colony that contains nearly half of the black-footed ferrets in the country and which biologists say is critical to the long-term health of the species has been struck by plague, which may have killed a third of the 300 animals. A much- publicized endangered species in the 1970s that had dwindled to 18 animals, the black-footed ferret had struggled to make a comeback and had been doing relatively well for decades. But plague, always a threat to the ferrets and their main prey, prairie dogs, has struck with a vengeance this year [2008], partly because of the wet spring. The ferrets are an easy target for the bacteria. "They are exquisitely sensitive to the plague," said Travis Livieri, a wildlife biologist here who is trying to save the colony. "They don't just get sick, they die. No ifs, ands or buts." Humans can catch plague, but it is easily treated with antibiotics. Mr. Livieri is working with the federal Fish and Wildlife Service's black-footed ferret recovery team, the Forest Service and some volunteers to try to save the colony at Conata Basin by dusting prairie dog burrows with flea powder that kills the plague-carrying insects. Mr. Livieri is also working on a vaccination program, prowling the prairie all night to capture ferrets for injections. Plague thrives in wet years, and this has been one of the wettest in the region in years. A combination of insecticide and vaccines can be very effective, said Dr. Dean Biggins, a research biologist with the United States Geological Survey, who has studied plague and ferrets. He said he had seen a plague outbreak hit a line of dusted burrows and stop cold. "There's no question they can be protected," he said. "It's not whether we can do it, but are we willing because of cost and labor? It might have to be done every year or 2." For now, the race is on to protect the heart of the ferret population. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect Case

MULTISTATE OUTBREAK OF SALMONELLA SAINTPAUL INFECTIONS: Since April, 1294 persons infected with *Salmonella* Saintpaul with the same genetic fingerprint have been identified in 43 states, the District of Columbia, and Canada. As of July 24, 2008, there are 37 persons identified as ill in Maryland. An FDA laboratory detected *Salmonella* Saintpaul with the outbreak strain fingerprint pattern in a sample of jalapeño pepper obtained from a distribution center in McAllen, Texas. The peppers were grown in Mexico; investigators are working to determine where they were contaminated. The accumulated data from all investigations indicate that jalapeño peppers are likely to be a major cause of this outbreak. Fresh serrano peppers and fresh tomatoes remain under investigation. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case
See below for other resources.

INTERNATIONAL DISEASE REPORTS:

CHIKUNGUNYA (INDONESIA): Chikunguya [virus] has attacked between 10 and 20 residents in RT 02, Banjar Yeh Sumbul, Yeh Sumbul, Mendoyo over the past 2 weeks. Most residents claimed that they did not know the cause and regarded it only as a normal fever. Symptoms occurred in residents in several households. Affected individuals reported fever and pain, especially of the hands and feet, characteristic of chikungunya [virus infection]. An official from the Kesehatan Service of the Jembrana Regency reported last Wednesday (July 16, 2008) [of positive confirmation for chikungunya virus infection] and afterwards did fogging the same day. Jamhuri, the chairman (mayor) of RT 02 said that

the conditions between adjacent houses in the complex enabled mosquitoes to breed in this settlement. He was also confused, asking how come now chikungunya [was being transmitted] because, in fact, they always were routinely given abate and cleaned the environment, he said. [Abate is a larvacide often used to control _Aedes aegypti_ mosquito breeding in water catchments in and immediately around houses and other buildings. - Mod.TY] He indicated that in his area about 24 residents had experienced [chikungunya virus infection] symptoms, but had partly recovered. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect Case

HAND, FOOT AND MOUTH DISEASE (CHINA): Cases of infectious intestinal disease were on the rise this summer in Jilin Province, northeast China, and 3 children were confirmed dead as a consequence of hand, foot and mouth disease (HFMD) in the period from 1 May to July 23, 2008. There were 6590 cases of infectious intestinal disease from 1 May to July 23, 2008, a rise of 170.2 percent from the same period last year, said the provincial health department at a news briefing held on Thursday [July 24, 2008]. The news briefing was organized to give a roundup report of disease control in the province in the past 3 months. Of the total, HFMD cases made up 4141. And 3610 children who fell ill with the diseases were under the age of 5. Medical examinations found enterovirus 71 (EV71) was responsible. Local health officials refused to provide more details regarding the 3 deaths. HFMD can be caused by a host of intestinal viruses, but EV71 and the coxsackievirus A16 (Cox A16) are the most common. It usually starts with a slight fever followed by blisters and ulcers in the mouth and rashes on the hands and feet. Those sickened by EV71 often show serious symptoms. It can also lead to meningitis, encephalitis, pulmonary edema and paralysis in some children. There is no vaccine. There was a HFMD outbreak in parts of south China in the spring. In Fuyang, the worst hit area, 22 children died of intestinal virus [infection] clinically diagnosed as EV71 infection, among tens of thousands of non-fatal infections. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect Case

Q FEVER (NETHERLANDS): The July 25, 2008 edition of de Volkskrant reports on an outbreak of Q fever in the southern province of North Brabant. Q fever, an infectious disease, which is transmitted to humans [usually] via contact with sheep and goats, is caused by the _Coxiella burnetii_bacterium. It can cause fever and even pneumonia. Usually, only between 5 and 20 cases are reported a year, but in 2007 a major outbreak occurred in a village near the town of Oss, where around 170 fell ill. This year [2008], the number has risen to 497 from all across the province. The health authorities say they have no explanation for the sudden increase in the number of infections, adding that they doubt whether the outbreak has been brought under control. (Q fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect Case

UNDIAGNOSED ENCEPHALITIS (INDIA): Despite the much-publicized intense immunisation drive carried out in 15 districts, [Japanese encephalitis (JE)] virus is wreaking havoc in the endemic pockets of Purvanchal. Nearly 324 patients suspected to be suffering from JE [virus infection] have been admitted to the BRD Medical College, Gorakhpur, and the number of casualties in the wards has reached 76. Amidst rising concern among the local populace, the authorities claim that only 6 have died due to JE [virus infection]. Talking to the Times of India (TOI) on Tuesday [July 22, 2008] the director, medical and health, Dr. I Srivastava, said that the casualties have come down remarkably this time and barring the 6 victims, the rest of the deaths were caused by an acute encephalitis syndrome (AES) which, he said, was different from JE. A team of medical experts has been dispatched from Lucknow and a team from Delhi is also [there], he assured, as he added there was nothing to worry about this year [2008]. Dr. L.P. Rawat, additional director, health, Gorakhpur division, said that since January 1, 2008 till Monday [July 21, 2008], 324 patients of acute encephalitis syndrome from Basti and Gorakhpur division were admitted to Nehru Chkitsalaya in the medical college, and 71 among them died during the treatment. Dr. Rawat also said that out of the serum of 235 patients tested in the virology lab Gorakhpur, JE [antibody? virus or virus sequences? - Mod.TY] was found only in 11 samples. The fine distinction between JE and AES has only added to the confusion among the lay person. Dr. KR Mathur, head of department of pathology and microbiology at the BRD Medical College claims that "in 2005, when the death toll had reached 2000, 68 percent were found to be JE positive." In 2006-2007, the number was reduced to 6 percent but incidence of water-borne virus enteroviruses, especially Coxsackie [viruses], shot up. "This year the situation is entirely different," said Dr. Mathur. JE positive cases are confined to 4 percent, but a new virus seems to have hit the pocket..." he claimed. And now, even as the government struggles to come to grips with the situation that has set alarm bells ringing in the endemic area is the realisation that the actual JE season will begin only in August. This year [2008] the monsoon arrived early, says professor of paediatrics Dr. KP Kushwaha. Talking to the TOI, he expressed apprehension that there JE attack could be severe when the paddy [rice] crop gets ready and mosquitoes find their ideal breeding place in the inundated fields by August and September. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (GEORGIA): The severe form of anthrax was found in Rodinaury village, Zestafonsky district; 2 persons were admitted to the Infectious Diseases Department of the hospital in Zestafony several days ago when their health condition sharply became worse. The patients received treatment in time and now their lives are safe. The source of the infection was sick cattle. This is the 4th case of anthrax in west Georgia during the last month. All patients are alive. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect Case

TULAREMIA (RUSSIA): Physicians from an infectious clinical hospital have reported the 1st case of tularemia in Moscow in 2008. A 53-year-old Muscovite had acquired tularemia in Naro-Fominsk, a Moscow suburban area, where he was on vacation in the country. For several days he fished and collected mushrooms. Symptoms of the infection began on 26 Jun 2008 with fever and groin swelling. Self-treatment had no success. In the hospital his illness was suspected as tularemia and the diagnosis was confirmed. (Tularemia is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect Case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Investigation of Outbreak of Infections Caused by *Salmonella* Saintpaul
Updated information on the recent outbreak of human Salmonella infections associated with consumption of raw tomatoes. (http://www.cdc.gov/salmonella/saintpaul/)

Survey of Hurricane Preparedness Finds Those Who Experienced Katrina Most Worried About Drinking Water and Medical Care
This article describes the results of a new survey of hurricane preparedness conducted by the Harvard School of Public Health Project on the Public and Biological Security. According to the survey, the top worries of respondents threatened or hit by Hurricane Katrina are that they would not have enough fresh water to drink and that they would not be able to get needed medical care.
http://www.hsph.harvard.edu/news/press-releases/2008-releases/hurricane-survey-katrina-fresh-water-medical-care.html

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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